



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,922	04/06/2001	Masaaki Nakashima	P20494	3624
7055	7590	08/24/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			HANEY, MATTHEW J	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,922	NAKASHIMA ET AL.	
	Examiner	Art Unit	
	Matthew Haney	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackland in view of Tsuji (US 5,258,834). Ackland teaches of a solid-state image device having an image sensor (Page 22, Column 2, First Paragraph); a controller for controlling the horizontal and vertical scan direction of an image portion of said image sensor; a scan control device which controls the scanning operation of said image sensor; and having one of said scan control device and said controller integrated on a common chip (Note: Figure 4 shows the cmos circuit with horizontal and vertical scanning capabilities, Along with Page 24, Column 1, first paragraph – CMOS APS has the ability to integrate much of the camera timing, control and signal processing circuitry onto the same die).

Ackland does not teach of the use of devices use in an endoscope, however, Tsuji does (Fig. 1, Reference Number 2a shows a CCD camera setup placed at the end of an endoscope along with control capabilities located at the other end of the endoscope and a monitoring device included with the device). It would have been obvious to one of ordinary skill in the art to place the integrated chip at the end of the endoscope in order

for the tube to be made smaller so that the tube could be maneuvered in smaller orifices of the body.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackland in view of Tsuji as applied to claim 1 above, and further in view of Yokoyama (US 6,381,163).

Most of the limitations of the claims are mentioned in the above rejection of Claim 1. Ackland does not teach of a scan direction changing device wherein said scan direction changing device causes the controller to change the scan direction of the image sensor; scan direction changing device comprising a vertical scan direction changing member to change the scan direction of the image sensor in the vertical direction and a horizontal scan direction changing member to change the scan direction of the image sensor in the lateral direction, however, Yokoyama (US 5381163) does (As seen in Figure 52, the registers control the address scanning of the image and then a control through the use of a switch or button can be sent to Reference Number 512 (Rotation/Mirror image assigning signal) to change the orientation of the picture before display). It would have been obvious to one of ordinary skill in the art to use the circuit like in Figure 52 in order to be able to rotate in 90-degree increments or to flip the image. The use of the circuit in Figure 52 allows for the use of only one control switch (or two control switches if desired), which would make using the endoscope easier.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackland in view of Tsuji as applied to claim 1 above, and further in view of Kiriyama (US 6,493,025).

Most of the limitations of the claims are mentioned in the above rejection of Claim

1. Ackland does teach of white balance placed after the A/D converter in the image-processing portion (Figure 7). Ackland an image processing device for processing the A/D-converted output signal, and a D/A converter for carrying out D/A conversions, however, Kiriama does (Figure 2 shows the A/D converter followed by the digital signal processor and then sent to the interface (Note: It is deemed obvious that if the interface (i.e. a monitor) was analog then a D/A converter would have been necessary after the digital signal processor)(Official Notice). It would have been obvious to one of ordinary skill in the art to incorporate the image-processing device after the A/D converter and before the D/A converter so that the processing can be done in the digital domain, which offers easier manipulation of data (i.e. white balance).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fossum (US 5,841,126) discloses a single substrate device which is formed to have an image acquisition device and a controller, where the controller controls the system operation. Omachi (US 4,636,783) discloses a shift-register setup that can be used to rotate an image with a single control switch. Olmstead (US 6,276,605) discloses that a CMOS circuit can be useful in integrated circuits in order to provide a more cost efficient means and to reduce the size of the integrated circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Haney whose telephone number is 703-305-

Art Unit: 2613


4915. The examiner can normally be reached on M-Th (7-4:30), Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew Haney
Examiner
Art Unit 2613

mjh


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600